School of STEM Planned Course Offerings - Fall 2025 to Summer 2026 (subject to change)

North Vancouver Campus

Department	
Engineering	Physics & Astronomy
Biology	Chemistry
Mathematics & Statistics	Computing & Data Sciences
Other department	

Course code, number, and title (credits)	Fall	Spring	Summer 1	Summer 2	Pre-requisites
First-year Courses					
APSC 111 Computer-Aided Design – SolidWorks (1)	✓	✓			Pre-calculus 12 or BMTH 054 or MATH 105 or Calculus MPT
APSC 112 Rapid Prototyping Technology (1)	✓				Pre-calculus 12 or BMTH 054 or MATH 105 or Calculus MPT
APSC 113 Engineering Management for Rapid Prototyping Technology (1)	✓				Pre-calculus 12 or BMTH 054 or MATH 105 or Calculus MPT
APSC 120 Introduction to Engineering (1) ♦	✓				None
APSC 130 Technical Drafting & CAD (3) ♦	✓	✓			Calculus MPT or Pre-calculus 12 or MATH 105 or BMTH 054
APSC 140 Engineering Design (3) ♦	✓	✓			APSC 130, and COMP 106 or COMP 120 as prerequisite with concurrency
ASTR 106 Introduction to Astronomy (3)	✓		✓		Pre-calculus 12 or Principles of Math 12, or Pre-calculus 11 (B), or Principles of Math 11 (B), or Foundations of Mathematics 11 (A), or BMTH 053/054, or MATH 105. MATH 105 may be taken concurrently.
ASTR 142 Introduction to Cosmology – The Story of the Universe (3)	✓	✓			Precalculus 12 (pass) or Principles of Math 12 (pass) or Precalculus 11 (B); or Principles of Math 11 (B); or Foundations of Mathematics 11 (A); or MATH 105 (pass). MATH 105 may be taken concurrently.
BIOL 104 Human Biology (4)	✓		✓		None
BIOL 105 Environmental Biology (4)		✓			None
BIOL 109 Introductory Biology (5.5) *	✓		✓		None * [**Note**: BIOL 109 replaces BIOL 106/107]
BIOL 110 General Biology I (4)	✓				Chemistry 11 (C+) or CHEM 130 (C+) or BCHM 044 (C+) or Chemistry 12 (C+) or CHEM 101 (C+) or BCHM 054 (C+).]
BIOL 111 General Biology II (4)		✓		✓	BIOL 106 and 107; or BIOL 109 as a prerequisite; or BIOL 110 as a prerequisite
BIOL 112 Human Anatomy & Physiology I (4)	✓				Biology 12 or BIOL 104 or BBIO 054 or BIOL 109 or BIOL 110
BIOL 113 Human Anatomy & Physiology II (4)		✓			BIOL 112
CHEM 101 Fundamentals of Chemistry (4)	✓	✓			Chemistry 11 or CHEM 030 or CHEM 130 or BCHM 044; and Foundations of Math 11 or Pre-calculus 11 or Pre-calculus 12 or BMTH 054 or MATH 097 or MATH 105 as a pre- or corequisite or Precalculus MPT
CHEM 110 Bonding & Structure (4)	✓	✓			Chemistry 12 (C+) or CHEM 101 (C+) or BCHM 054 (C+); and Precalculus 12 (C+) or BMTH 054 (C-) or MATH 105 (C-) or Calculus MPT
CHEM 111 Chemical Dynamics & Energetics (4) *		✓	✓ *		CHEM 110 (C-); and Precalculus 12 (B) or BMTH 054 (C+) or MATH 105 (C-) or Calculus MPT * [**Note**: For summer term, priority registration is for Engineering Diploma students]
CHEM 154 Chemical Principles for Engineers (4) ♦	✓				Chemistry 12 or CHEM 101 or BCHM 054 with (B) and Math 116 is a prerequisite or corequisite
COMP 101 Computers and Their Application (4)	✓	✓	✓		One of the following: Pre-calculus 11, Foundations of Mathematics 11, Workplace Mathematics 11, History of Mathematics 11, Computer Science 11, BMTH 044, BMTH 048, MATH 123 or Precalculus MPT, or IXD 108 (C-).
COMP 106 Programming with Robots (4)	✓				One of the following: Pre-calculus 11, Foundations of Mathematics 11, Workplace Mathematics 11, Computer Science 11, BMTH 044, BMTH 048, MATH 123, Precalculus MPT, or COMP 101 (B-)
COMP 115 Learn to Code (4)	✓	✓	✓		One of the following: Pre-calculus 11, Foundations of Mathematics 11, Workplace Mathematics 11, Computer Science 11, BMTH 044, BMTH 048, MATH 123, Precalculus MPT, or COMP 101 (B-)
COMP 120 Computing Science for Engineers (4) ♦	✓	✓			One of the following: COMP 106 (C+), COMP 115 (C+), Pre-calculus 12 (A), Foundations of Mathematics 12 (A), Computer Science 12 (A), or MATH 105 (C-)
INTS 110 Making Change: Regional Research and Action (3) *		✓	✓ *		None * [**Note**: Summer course is tentative, at Lonsdale Campus]
MATH 097 Intermediate Algebra (3)	✓	✓	✓*		Basic MPT; or Pre-calculus 11 with (C+); or Pre-calculus 12 or BMTH 044 with (C) *** [Note:** Summer course is tenatative and dependent on demand.]
MATH 105 Precalculus Mathematics - Modelling Our World (4)	✓	✓	✓		Precalculus MPT; or Pre-calculus 11 with (A); or Pre-calculus 12 with (C+); or MATH 097 or MATH 096 with (C-); or BMTH 044 with (B)
MATH 108 Calculus I for Business, Social Sciences & Life Sciences (3) *	✓	✓	✓		Calculus MPT; or Pre-calculus 12 (B); or MATH 105 (C-); or BMTH 054 (C+). * [**Note**: MATH 108 is equivalent to MATH116]
MATH 109 Calculus II for Business, Social Sciences & Life Sciences (3) *		✓			MATH 108 or 116 with (C-) * [**Note**: MATH 109 is equivalent to MATH 126]
MATH 116 Calculus I for Physical Sceiences and Engineering (4)	✓	✓	✓		Calculus MPT; or Pre-calculus 12 with (A); or Pre-calculus 12 and Calculus 12 with (B) in each; or MATH 105 with (C-); or BMTH 054 with (B)
MATH 123 Contemporary Mathematics (3) ⅄	✓	✓	✓		None; Not intended for science students
MATH 124 Discrete Mathematics I (3) Ⓒ	✓				Math Placement Test (MPT) or Precalculus 12 (B) or MATH 108 (C-) or MATH 116 (C-) or MATH 105 (C-) or BMTH 054 (C+)
MATH 126 Calculus II for Physical Sceiences and Engineering (3) *	✓	✓	✓*		MATH 116 with (C-) * [**Note**: MATH 126 is equivalent to MATH 109. Summer course is tenatative and dependent on demand.]
MATH 139 The Mathematics of Visual Art (3) ⅄		✓			None; Not intended for science students
MATH 190 Mathematics for Elementary Teachers (4) ⅄	✓	✓			Basic MPT; or MATH 097; or MATH 091 or BMTH 043 (B); or MATH 096 (C-); or BMTH 044 with (C+); or MATH 123 or BMTH 048 or Pre-calculus 11 or Principles of Math 11 or Foundations of Math 11 or Applications of Math 11 (C); Not intended for science students
STAT 101 Introduction to Statistics (3)	✓	✓	✓		Basic MPT; or MATH 097; or MATH 091 or BMTH 043 (C+); or MATH 096 or BMTH 044 (C-); or MATH 123 or BMTH 048 or Pre-calculus 11 or Principles of Math 11 or Foundations of Math 11 or Applications of Math 11 (C)
PHYS 104 Principles of Physics (4)	✓	✓	✓		Pre-calculus 12, or Principles of Math 12, or BMTH 053/054, MATH 105. MATH 105 may be taken concurrently
PHYS 112 Introductory Physics for the Life Sciences I (4)	✓				Physics 12 or BPHY 053/054 or PHYS 104; and Pre-calculus 12 or BMTH 054 or MATH 105
PHYS 113 Introductory Physics for the Life Sciences II (4)		✓			Physics 12 or BPHY 053/054 or PHYS 104; and Pre-calculus 12 or BMTH 054 or MATH 105
PHYS 114 Fundamental Physics I (4) *	✓	✓			Physics 12 (B) or BPHY 054 (B) or PHYS 104 (C-); and MATH 116 as a prerequisite or corequisite ***** **[Note**: Priority registration is for Engineering students]
PHYS 115 Fundamental Physics II (4) *	✓	✓			PHYS 114 with (C-) and Math 126 is a prerequisite or co-requisite *** [Note:** Priority registration is for Engineering students]
PHYS 116 Fundamental Physics III (3) *	✓	✓			PHYS 108, 110 or 114 with (C-) and PHYS 115 is a prerequisite or co-requisite and MATH 126 is a pre- or co-requisite *** [Note:** Priority registration is for Engineering students]

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♦ For Engineering Students ⅄ Not intended for science students

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BSc Concentrations: Ⓔ - Environmental Science, Ⓒ - Computational Science, Ⓑ - Biomedical Sciences

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North Vancouver Campus

Department	
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Other department	

Course code, number, and title (credits)	Fall	Spring	Summer 1	Summer 2	Pre-requisites
Second-year Courses					
BIOL 200 Genetics (3) Ⓑ	✓				BIOL 111 (C-) and CHEM 111 (pass)
BIOL 202 Nutrition (3)		✓		✓	BIOL 113 (C-) or BIOL 111 (C-), and Chemistry 11
BIOL 203 Introduction to Microbiology (4)		✓			BIOL 111 (C-)
BIOL 208 Ecology (4) Ⓔ		✓			BIOL 111 (C-)
BIOL 209 Fundamentals of Physiology (3) Ⓑ	✓			✓	BIOL 111 (C-)
BIOL 212 Invertebrate Zoology					BIOL 111 (C-)
BIOL 213 Vertebrate Zoology (4)	✓				BIOL 111 (C-)
BIOL 214 Cell Biology (4) Ⓑ	✓				BIOL 111 (C-); and CHEM 200 or CHEM 211 as a prerequisite or corequisite
BIOL 230 Botany - Algae to Angiosperms (4)		✓			BIOL 111 (C-)
BIOL 241 Pathology I (3)	✓				BIOL 113 (C-) or HKIN 191 (C-) or BIOL 111 (A-)
CHEM 204 Structure, Energetics and Spectroscopy (3) Ⓔ Ⓑ		✓			CHEM 111 (C-); and MATH 116 or MATH 108 as a prerequisite or corequisite
CHEM 211 Organic Chemistry for the Life Sciences (4) Ⓔ Ⓑ	✓				CHEM 111 (C-)
CHEM 215 Biochemistry I: Macromolecular Structure & Function (3) Ⓑ		✓			BIOL 214 (C-); and CHEM 211 (C-) or CHEM 201 (C-)
COMP 215 Introduction to Computational Science (4) Ⓒ		✓			COMP 115 (A-); OR COMP 115(C+) and one of the following: MATH 116 (C-), MATH 108 (C-), or MATH 124 (C-)
GEOG 225 Intro to Geographic Information Systems (4)	✓				GEOG 112, 212 or 221, or permission from the instructor
MATH 230 Calculus III (3)					MATH 109 (C-) or MATH 126 (C-)
MATH 252 (152) Linear Algebra & Differential Equations (4) * Ⓒ	✓	✓			MATH 109 or MATH 126 as a pre or a corequisite * [**Note**: MATH 252 replaces MATH 152]
STAT 205 Introduction to Probability and Statistics (3) Ⓒ		✓			MATH 109 or MATH 126 as a pre or corequisite
Upper-year Courses					
ASTR 300 The Search for Life in the Universe (3)		✓			45 credits of 100-level or higher coursework
BIOL 300 Molecular Genetics (4) Ⓑ		✓			BIOL 200 (C-), and one of BIOL 203 (C-) or BIOL 214 (C-)
BIOL 308 Conservation Biology Ⓔ					BIOL 208 (C-)
BIOL 313 Human Physiology II: Blood, Gas & Antibodies (3) Ⓑ			✓		BIOL 209 (C-) and CHEM 215 (C-)
BIOL 314 Advanced Cell Biology (3) Ⓑ	✓				BIOL 214 (C-); and BIOL 215 (C-) or CHEM 215 (C-)
BIOL 351 Global Biogeography (3)	✓				45 credits of 100-level or higher coursework
BIOL 409 Global Change Biology (3)	✓				BIOL 208 (C-) or GEOG 222 (C-)
CAPS 499 Degree Portfolio (3) Ⓔ Ⓑ Ⓒ	✓	✓			90 credits of 100-level or higher coursework including at least one Cap Core Experiential course
CHEM 304 Environmental Chemistry (3) Ⓔ		✓			CHEM 201 (C-); or CHEM 211 (C-) and CHEM 204 (C-)
CHEM 311 Applications of Spectroscopy (4) Ⓔ	Next offered Fall 2026				CHEM 201 (C-); or CHEM 211 (C-) and CHEM 204 (C-)
CHEM 315 Biochemistry II: Metabolism & Bioenergetics (3) Ⓑ		✓			CHEM 211 (C-) and CHEM 204 (C-), or CHEM 201 (C-); and BIOL 215 (C-) or CHEM 215 (C-)
CHEM 411 Medicinal Chemistry: Drug Design and Drug Action (3) Ⓑ	✓				CHEM 211 (C-) and CHEM 204 (C-), or CHEM 201 (C-); and BIOL 215 (C-) or CHEM 215 (C-)
COMP 301 Computing Technologies in a Digital Culture (3) Ⓒ	✓	✓			45 credits of 100-level or higher coursework including one of the following: COMP 101, COMP 115, or MOPA 209
COMP 320 Database Technologies and Applications (4) Ⓒ		✓			45 credits of 100-level or higher coursework and COMP 215
COMP 330 Data Wrangling (4) Ⓒ	✓				45 credits of 100-level or higher coursework and one of COMP 115 (A-) or COMP 215
MATH 336 Applied Graph Theory and Optimization (3)					45 credits of 100-level or higher coursework including MATH 124 and COMP 115
STAT 305 Introduction to Data Science (3) Ⓒ	✓				COMP 115 and one of: STAT 101, LBST 201, BADM 210, PSYC 213 OR TOUR 350
STAT 310 Design and Analysis of Experiments (3) Ⓔ Ⓑ Ⓒ	✓	✓			45 credits of 100-level or higher coursework including COMP 115 and one of STAT 101, STAT 205, LBST 201, BADM 210, PSYC 213, TOUR 350 or KINE 30
PHYS 310 Energy Technologies Lab (4) Ⓔ		✓			PHYS 210 or PHYS 211; OR STAT 205 and one of: CHEM 200, CHEM 201, CHEM 206, CHEM 211, BIOL 203, BIOL 208, BIOL 214, or BIOL 215
SCI 400 Research Project (3) Ⓔ Ⓑ Ⓒ	✓	✓			15 credits of 300-level or higher coursework in designated Science courses from the Faculty of Arts and Sciences, including STAT 310 and one of: BIOL 300 (C-), BIOL 408 (C-), CHEM 311 (C-), CHEM 404 (C-), COMP 320 (C-), COMP 330 (C-) or PHYS 310 (C-)

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